REMARKS

Following entry of the foregoing amendments, claims 1, 6 to 9, 11 to 13, and 20 will be pending in the application. Claims 1, 11, and 12 have been amended and claims 5 and 10 have been canceled, without prejudice, herein. New claim 20 has been added. Support for claim 20 is found throughout the specification as originally filed, including, for example, page 12, lines 8 and 9 and page 11, lines 4 to 8.

Applicants respectfully request reconsideration of the rejections of record in view of the foregoing amendments and the following remarks.

Alleged Indefiniteness

Claims 1 and 5 to 12 have been rejected under 35 U.S.C. § 112, second paragraph as allegedly indefinite for recitation of the phrase "salts, solvates, hydrates and N-oxides thereof." The Office Action asserts that the claims are contradictory because they recite "a compound," but also recite "salts, solvates, hydrates or N-oxides thereof," which describes more than a single compound. In addition, the Office Action asserts that the particular hydrates, solvates, or N-oxides that Applicants are claiming are not clear. Applicants respectfully submit that the claims are not indefinite because those skilled in the art would readily understand the scope of the subject matter defined by the claims. Specifically, those skilled in the art would not consider the claims to be contradictory and would understand that Applicants are claiming each compound that falls within the scope of formula 1a as well as the salts, solvates, hydrates, and N-oxides of those compounds. Furthermore, upon review of the specification, those skilled in the art would readily understand which salts, solvates, hydrates, and N-oxides Applicants are claiming. Nevertheless, to advance prosecution,

claims 1 and 12 have been amended to replace the phrase "and the salts, solvates, hydrates or N-oxides thereof" with the phrase "or a pharmaceutically acceptable salt thereof." Support for the amendments is found throughout the specification as originally filed, including, for example, page 13, line 28 to page 14, line 13. The rejection has been obviated, and Applicants respectfully request withdrawal thereof.

Alleged Anticipation

A. Claims 1, 5, 7, 8, 10, 11, and 13 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Chemical Abstracts number 124:56589 (hereinafter "the Krchnak abstract"). The Office Action asserts that the Krchnak abstract discloses L-tyrosine, N-acetyl-O-(2-pyridinylmethyl); L-tyrosine, N-acetyl-O-(3-pyridinylmethyl); and L-tyrosine, N-acetyl-O-(4-pyridinylmethyl), which allegedly fall within the scope of the subject matter defined by the claims. Without conceding the correctness of the assertion, and to advance prosecution, claim 1 has been amended to recite that R^1 is a pyridyl group substituted by one or two halogen atoms. Support for the amendment is found throughout the specification as originally filed, including, for example, page 12, lines 8 and 9; page 11, lines 4 to 8; and Examples 5 to 8, 11, 16, 18, 20, 22, 24, 26, 28, 30, and 36. The Krchnak abstract fails to describe or suggest compounds in which the group corresponding to R^1 of formula 1a is a pyridyl group substituted by one or two halogen atoms. Applicants accordingly respectfully request withdrawal of the rejection.

B. Claims 1, 5, 7, 8, 10, 11, and 13 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by PCT application number WO 97/24122 (hereinafter "the Ali application"). The Office Action asserts that the Ali application discloses L-tyrosine, O-[3-

(6-amino-2-pyridinyl)propyl]-N-(butylsulfonyl), which allegedly falls within the scope of the claims. Without conceding the correctness of the assertion, and to advance prosecution, claim 1 has been amended to recite that R^1 is a pyridyl group substituted by one or two halogen atoms. The Ali application fails to describe or suggest compounds in which the group corresponding to R^1 of formula 1a is a pyridyl group substituted by one or two halogen atoms. Applicants accordingly respectfully request withdrawal of the rejection.

C. Claims 1, 5, 7, 8, 10, 11, and 13 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Chemical Abstracts number 86:107036 (hereinafter "the Gosden abstract"). Preliminarily, Applicants note that the Gosden abstract appears to have been published in 1999. Accordingly, the Gosden abstract is not prior art to the present application. In this regard, the present application was filed June 4, 1999 as U.S. application Serial No. 09/326,020, and claims priority under 35 U.S.C. § 119 to UK application Serial No. 9812088.4, filed June 5, 1998. The effective filing date of the present application is thus June 5, 1998. Since the effective filing date of the present application is prior to the publication date of the Gosden abstract, the Gosden abstract is not prior art to the present application. The rejection is therefore improper and should be withdrawn.

Moreover, the Office Action asserts that the Gosden abstract discloses L-tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-(4-pyridinylmethyl), which allegedly falls within the scope of the claims. As noted above, claim 1 has been amended to recite that R^1 is a pyridyl group substituted by one or two halogen atoms. The Gosden abstract fails to describe or suggest compounds in which the group corresponding to R^1 of formula 1a is a pyridyl group substituted by one or two halogen atoms. Applicants accordingly respectfully request withdrawal of the rejection for this reason as well.

D. Claims 1, 5, 6, 7, 8, 10, 11, and 13 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Chung, J.Y.L., *et al.*, *Tetrahedron* 19:5767-5776 (1993) (hereinafter "the Chung publication"). The Office Action asserts that the Chung publication discloses at page 5770 L-tyrosine, N-(Butylsulfonyl)-O-[4-(4-pyridinyl)butyl], which allegedly falls within the scope of the claims. Without conceding the correctness of the assertion, and to advance prosecution, claim 1 has been amended to recite that R^1 is a pyridyl group substituted by one or two halogen atoms. The Chung publication fails to describe or suggest compounds in which the group corresponding to R^1 of formula 1a is a pyridyl group substituted by one or two halogen atoms. Applicants accordingly respectfully request withdrawal of the rejection.

E. Claims 1, 5, 6, 7, 8, 9, 10, 11, and 13 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 6,596,752 (hereinafter "the Lobl patent"). Preliminarily, Applicants note that, since the Lobl patent issued July 22, 2003, it cannot be prior art under 35 U.S.C. § 102(b).

The Office Action asserts that the Lobl patent discloses compound 77 at column 147; compounds 208 to 210 at columns 194 to 195; L-phenylalanine, N-[[(1s, 3R)-3-carboxy-2,2,3-trimethylcyclopentyl]carbonyl]-4-[(2-pyridinylcarbonyl)amino]-alphamethyl ester; and L-Tyrosine, N-[(1, 1-dimethylethoxy)carbonyl]-O-[5-[(4,6-diphenyl-2-pyridinyl)oxy]pentyl], which allegedly fall within the scope of the claims. Without conceding the correctness of the assertion, and to advance prosecution, claim 1 has been amended to recite that R^1 is a pyridyl group substituted by one or two halogen atoms, and to recite that R^4 is a straight or branched C_{1-6} alkyl group. Support for the amendment of the definition of R^1 is discussed above, and support for the amendment of the definition of R^4 is found throughout the specification as

originally filed, including, for example, original page 10 and Examples 5, 7, 8, 11, 16, 18, 20, 22, 26, 30, and 36. The Lobl patent fails to describe or suggest compounds in which the group corresponding to R^1 of formula 1a is a pyridyl group substituted by one or two halogen atoms and in which the group corresponding to R^4 of formula 1a is a straight or branched C_{1-6} alkyl group. Applicants accordingly respectfully request withdrawal of the rejection.

F. Claims 1, 5, 6, 7, 8, 9, 10, 11, and 13 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by PCT application number WO 99/06435 (hereinafter "the Thorsett application"). Applicants note that the Thorsett application was published February 11, 1999 and has a priority date of July 31, 1997. Since the application was filed July 30, 1998, it is not prior art due to the present application's priority date of June 5, 1998.

Alleged Obviousness

A and B. Claims 1, 5, 6, 7, 8, 10, 11, and 13 have been rejected under 35 U.S.C. § 103(a) as allegedly obvious over U.S. Patent No. 5,206,373 (hereinafter "the Chung patent"). In addition, claims 1, 5, 6, 7, 8, 10, 11, and 13 have been separately rejected under 35 U.S.C. § 103(a) as allegedly obvious over PCT application number WO 93/16994 (hereinafter "the Chung application"). The Office Action asserts that it would have been obvious to those of ordinary skill in the art to select compounds structurally similar to those defined by the claims from the genera of compounds described in the Chung patent and the Chung application. Applicants respectfully traverse the rejections.

To establish *prima facie* obviousness, the PTO must satisfy three requirements. First, the Patent Office must provide objective evidence that the prior art relied upon, coupled with the knowledge generally available in the art at the time of the invention, contains some

suggestion or incentive that would have motivated those of ordinary skill in the art to modify a reference or to combine references. *In re Lee*, 61 U.S.P.Q.2d 1430, 1433 (Fed. Cir. 2002); *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1998). Second, the proposed modification or combination of the prior art must have had a reasonable expectation of success, determined from the vantage point of those of ordinary skill in the art, at the time the invention was made. *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200, 1209, 18 U.S.P.Q.2d 1016, 1023 (Fed. Cir. 1991). Finally, the prior art reference or combination of references must teach or suggest all the limitations of the claims. *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

Applicants respectfully submit that those of ordinary skill in the art would not have been motivated to select compounds structurally similar to those defined by the claims from the genera described in the Chung patent and the Chung application, and would also not have been motivated to modify such compounds to arrive at the compounds defined by the present claims. The Chung patent describes compounds in which the group corresponding to R^1 of formula 1a of the present claims is an ***unsubstituted*** 4-piperidinyl or 4-pyridinyl group, and the Chung application describes compounds in which the group corresponding to R^1 of formula 1a of the present claims is an ***unsubstituted*** six-membered saturated or unsaturated heterocyclic ring containing one or two nitrogen atoms. In contrast, the present claims, as amended herein, recite compounds of formula 1a in which R^1 is a pyridyl group ***substituted by one or two halogen atoms***. The Chung patent and the Chung application fail to teach or suggest compounds containing substituted pyridyl groups at the position corresponding to R^1 of formula 1a, much less pyridyl groups substituted by one or two halogen atoms. Accordingly, those of ordinary skill in the art would not have been motivated to select

compounds containing pyridyl groups at the position corresponding to R^1 of formula 1a from the genera described in the Chung patent and the Chung application and would not have been motivated to modify such compounds by adding one or two halogen substituents to the pyridyl groups.

Moreover, those of ordinary skill in the art would not have reasonably expected that such modifications would have led to compounds that exhibit the same activities as compounds containing unsubstituted pyridyl groups. Those skilled in the art, therefore, would not have been motivated to select and modify compounds described in the Chung patent and the Chung application to arrive at the subject matter defined by the present claims. Applicants accordingly respectfully request withdrawal of the rejection.

C. Claims 1, 5, 6, 7, 8, 10, 11, and 13 have been rejected under 35 U.S.C. § 103(a) as allegedly obvious over the Lobl patent. The Office Action asserts that it would have been obvious to those of ordinary skill in the art to select compounds structurally similar to those defined by the claims from the genus of compounds described in the Lobl patent. Applicants respectfully traverse the rejection.

Applicants respectfully submit that those of ordinary skill in the art would not have been motivated to select compounds structurally similar to those defined by the claims from the genus described in the Lobl patent, and would also not have been motivated to modify such compounds to arrive at the compounds defined by the present claims. The Lobl patent describes compounds in which the group corresponding to R^4 of formula 1a of the present claims is a substituted cyclopentyl group. In contrast, the present claims, as amended herein, recite compounds of formula 1a in which R^4 is a straight or branched C_{1-6} alkyl group. The Lobl patent fails to teach or suggest compounds containing straight or branched alkyl groups

at the position corresponding to R^4 of formula 1a. Accordingly, those of ordinary skill in the art would not have been motivated to select compounds structurally similar to those defined by the claims from the genus described in the Lobl patent, and would not have been motivated to substitute a straight or branched alkyl group for the cyclopentyl groups of such compounds. Moreover, those of ordinary skill in the art would not have reasonably expected that such modifications would have led to compounds that exhibit the same activities as the unmodified compounds. Those skilled in the art, therefore, would not have been motivated to select and modify the compounds described in the Lobl patent to arrive at the subject matter defined by the present claims. Applicants accordingly respectfully request withdrawal of the rejection.

Conclusion

Applicants believe that the foregoing constitutes a complete and full response to the Office Action of record. Accordingly, an early and favorable Action is respectfully requested.

Respectfully submitted,

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